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THE GENESEE FARMER.

SATURDAY, JANUARY 20, 1838.

☞ No paper can be discontinued without the payment of the sum due for it. It is our intention hereafter to publish the names of such persons as stop their papers without paying arrearages, with the amounts for which they are severally indebted.

LEGISLATIVE AID TO AGRICULTURE.

PLAN FOR AN EXPERIMENTAL FARM.

We are pleased to perceive that this subject is beginning to receive from our farmers the attention it deserves; and we hope it will not be suffered to rest until it has been brought before the representatives of the people in such a way that they will perceive its importance, and feel the propriety of taking effectual measures to comply with their wishes.

We are gratified in being able to lay before the readers of the Farmer the following plan of an Agricultural Society and Experimental Farm, from the pen of an intelligent and enterprising practical farmer, Col. JAMES L. VOORHEES, of Lysander, Onondaga Co. He says:

"My plan, which has received the approval of some of our most intelligent farmers in this and Cayuga counties, I cheerfully transmit to you, and is in substance as follows:—In the first place I should desire an act of the legislature—a law general in its provisions would perhaps be preferable—authorising any number of individuals that should think proper, to associate themselves, for agricultural purposes, with power to purchase, hold or dispose of, real or personal estate to a certain amount, for the purpose of improving such property as an experimental farm. Such company should purchase such a sized farm as might be thought most advisable, embracing as great a variety of soils, wet, dry, &c. as could be conveniently found, in order that the experiments connected with soils, might be as varied and extensive as possible. On such a farm the effects of different modes of manuring, of under and open draining, and other operations connected with the improvement of soils might be exhibited to the public. Another object in view on the experimental farm would be the formation of fences, such as stone, stone and rail, stone and sod, sod alone, the varieties of thorn or hedge fence, straight and crooked post and board fence, and common rail fence, with an accurate account of their expence by the rod. The construction of out buildings would form another important item in such a farm, comprising the most convenient and economical modes of building for feeding, fattening, and wintering animals.

"The cultivation of all kinds of roots would naturally form part of the objects embraced on such a farm; and the best methods of raising, cooking, and feeding them, so as to show the actual result of each experiment, could be well attended to. There are various opinions among farmers as to the proper method of cooking roots, potatoes, for instance; whether boiling or steaming is to be preferred; and while steaming seems to be the cheapest process, there are many things to be argued infavor of boiling.

"Stocking the farm would be another important point, viewing it as experimental. No pains should be spared in obtaining the best varieties of hogs for fattening; sheep, for wool and for mutton; cattle for the dairy, draught, and butcher; in all these the best improved breeds should be selected, and carefully improved or preserved. On such a farm, all kinds of farming implements, particularly the latest and most approved fashions, might be tested, and their relative value satisfactorily ascertained. In short I would have such a farm experimental in every agricultural sense of the word.

"The subscription stock of such an association, I would have divided into small shares, and the whole controlled by a board of directors; and the farm let on shares, or worked by a suitable overseer, as experience should prove most beneficial. My object in having small shares, would be, to have as many interested as possible, so that an extended feeling in its success might be created, and that in case of the failure of any of the experiments, the loss would not be so severely felt. To effect these experiments and improvements I would not ask aid from the state, further than the act of incorporation.

"I should be most decidedly in favor of fairs, annual shows, and premiums, so far as the society could obtain the means; and any legislative aid in furnishing funds for such an object, and to be awarded to competitors at our fairs under proper restrictions, I think would be most beneficial, and of the favorable results there can be no doubt.

"I think that a Society formed on the plan of which I have given a mere outline, if judiciously managed, would have the effect of introducing similar farms into every county in the state, or at least all the principal ones; and the friendly rivalry thus excited is the very thing required to give an impulse to agriculture. We should have the benefits of each other's experiments, and these would have a tendency to stimulate and rouse to exertion.

"The advantages that such a County Society would have over a State Society of the same kind, appear to me to be very evident. It is certain there would be but few, comparatively, of the farmers in the state that would be benefited by a State Society. The difficulty lies in the fact, that farmers, or the great majority of them, do not read enough to obtain the information necessary for their improvement; and of those that do read, many have little confidence in the information so given; their argument is—the men who write for, and superintend agricultural papers, are only farmers in theory, not in practice;—now to do away the prejudices of both these classes against improvement, I would have the experimental farm located somewhere near the centre of the county, where every farmer can go and examine for himself, and witness the practical result of all the experiments tried on the farm. These classes of farmers, are generally men who do not travel enough to get information from that source; and hence the necessity of bringing such improvements, where their notice can scarcely be avoided.

"I think it would be well for the different counties to call public meetings of the farmers, and all others that feel interested in the pursuits and prospects of agriculture, and forward their wishes and petitions to the Legislature, with as little delay as possible. There is great reason to believe they would be favorably received, and willingly responded to, by the representatives of the people."

We are on the whole inclined to think favorably of the plan sketched by Col. Voorhees. Of the beneficial effect which such an experimantal farm would have on the improvement of agriculture, when connected with fairs and premiums, there can be no doubt; and we can see no reason why an institution of the kind proposed, may not be profitable to those interested. The sales of swine, sheep and neat cattle, effected by those who have been in the habit of raising the improved varieties for sale, would seem to justify the expectation, that with an experimental farm, such sales would form no inconsiderable item of profit.

We hope the suggestion of calling public meetings of those interested in agriculture, will be considered, and promptly acted upon. A mutual understanding, is necessary for mutual action; and in this case united and harmonious movements are doubly important from the magnitude of the interest involved. In the mean time we shall be happy to receive such suggestions, as the friends of legislative aid to agriculture, in the various methods proposed, shall see fit to make.

WHEAT.---No. 2.

HARVESTING.

Wheat, if harvested too early, will lose in weight very considerably, though the flour produced from it will be of a superior quality. If allowed to stand too long, there is danger of loss from its shelling freely in cutting and carting, and though more flour is made, it has not the pure whiteness of earlier cut grain. In order to avoid the loss by shrinkage on one hand, and shelling on the other, it becomes of considerable consequence to determine the most advantageous period of cutting wheat. That wheat should be allowed to stand until the berry will be mature, there can be no doubt. After this time, all is unnecessary danger in exposure. The white flint is a wheat, which in the field, resists two causes of danger and loss better than any variety with which we are acquainted;—it rarely germinates on the stalk while standing, as some other kinds will, in unfavorable weather; and owing to the firmness with which the kernel is embraced by the chaff, the loss by premature shelling, is inconsiderable.

Brown in his treatise on Rural Economy, an excellent English publication, says,—"It is necessary to discriminate between the ripeness of the straw, andthe ripeness of the grain; for in some seasons the straw dries upwards; under which circumstance, a field to the eye, may appear completely fit for the sickle, when, in reality the grain is imperfectly consolidated, and in fact not much removed from a milky state." We have seen wheat in this state, cut, and when put immediately in a mow or stacked, it can hardly fail of receiving injury. Such grain, though it can receive no benefit from the root by standing, is materially aided in ripening by the action of the air and the sun. Mr. Shirreff in the Quarterly Jour. of Ag. gives as reasons for cutting wheat before it is dead ripe, that is when the straw begins to turn, or is turned yellow immediately below the ear;—first, an increased quantity of grain; greater security from the weather; an improved quality of straw: and an extension of the harvest season.—Secondly, greater security against the effects of wind or rain, either as it effects the shelling, discoloration, or germination of the grain. The color of wheat which was not cut till it became dead ripe is generally of an opaque whitish hue; while that which was cut before it was dead ripe is transparent and tinged with brown. The latter description of wheat bears the highest price in all markets. Where, however, wheat is smutty, it should be allowed to stand as long as it can do so with safety, as much of that fungus will be lost in the field, and the remainder more easily broken to pieces, and blown away in the process of threshing and cleaning. It may be however considered as a general rule, and one which is sanctioned by the practice of the most skilful farmers in this country and abroad, that it is better to cut wheat early than late, and that there is less danger from loss by shrinking than from shelling.

The time necessary for wheat to remain in the field after it is cut, before it is put in the barn or stacked, must in a great measure depend on two circumstances; the ripeness of the grain when cut, and its freedom from every thing green when bound into sheaves. If the grain is perfectly ripe, and the straw thoroughly dried, and the sheaves free from grass or weeds, wheat may be cut, and stacked or housed the same day; but as these conditions are rarely found united, and nothing is more fatal to the quality of wheat than heating and moulding in the mow or stack, it is usually better to let the wheat be effectually cured in the field, than run any risque from premature

housing. The best method of securing it from sudden showers, or unfavorable weather while left in the field, now becomes a question of interest to the farmer. He well knows that if a sheaf of wheat or other grain is once thoroughly soaked, it takes it a long while to dry; and though a slight wetting of the heads or butts of a sheaf, will soon pass away by evaporation and exposure to the air, yet water in the center of the sheaf where the straw is compressed by the bands, requires many days of fair weather for its dissipation. Various methods are adopted by farmers to save their grain from wetting. Some lay it in the form of a cross, the heads in the centre, and the whole surmounted with a sheaf so disposed as to throw off any slight showers that may fall. Others place their wheat in shocks, the sheaves two and two, standing on their butts, the heads of the sheaves inclined to each other, and the tops covered by two sheaves laid their butts to each other, and the tops spread out so as to shield the standing wheat as much as possible. Others place their wheat in the same position as the last, with the exception that all of the shock is left standing, and no sheaves are placed over the heads. In fine weather this method is preferable to any other, as the wheat is more exposed to the influences of the air and sun, and is consequently sooner fit for the barn. It will even stand through a shower not too severe, in this way, with little injury, if followed by sun and clear air; but it is evident that heavy or long continued rain by the thorough soaking the sheaves must receive, can scarcely be otherwise than prejudicial to the quality of the wheat; and it is by getting in wheat before the centre of the sheaf is dry after wetting, that more wheat is injured in this country than in any other way. Another, and perhaps all things considered, the safest way of all, is to put up the wheat the day it is cut, and if rain is apprehended as fast as it is cut and collected, into stacks containing from eight to ten shocks each, the sheaves built in compact with their heads to the middle, and the butts declining outwards, and the stack topped with a sheaf so arranged as to cover the cone of heads, and throw off the rain in every direction. Wheat so put up, and well managed, may stand for weeks without injury and wait the pleasure of the owner for gathering to the barn; and the green stuff with which the butts may be filled, will be effectually dried, and thus prevented injuring the wheat, which it would have done had it been housed before curing. Experience here however is the surest guide, as the seasons differ in different places, and what may be followed in one place with safety might be ruinous in another. Thus in northern latitudes far more care is required than in southern ones; and while the grain of the north of Europe can with difficulty be saved at all, nothing is more safe from injury by the weather, than the harvests of Spain and Italy; and the same remarks are true, though to a less extent, on this continent. It should however be remembered that experience here and abroad, shows that while other methods of securing *may* be safe, stacking in the field, when the stacks are properly put up, is certainly so, and should generally be followed for that season.

DISEASES OF WHEAT.

The diseases of wheat, are usually of two kinds; smut and blight. The first is of two kinds; in one of which the farina of the berry or grain is converted into a black powder and the husk is more or less covered with the same. This kind of smut is oftener found on oats and barley, than wheat, though the latter is not exempt. In the other kind of smut the kernel alone is affected; the envelope rarely breaks until passed the machine in threshing, and even then frequently escapes to injure the quality of the wheat and seriously affect the price. As mentioned before, brine and quicklime are antidotes to smut in any form; and a preparation of arsenic and potash has also been lately recommended for the same purpose.

The latest writers on Blight, such as Davy, Banks, Loudon, and Grisenthwaite, divide this disease into 4 varieties:—blight from cold and frosty winds—blight from a sultry and noxious vapor—blight from a want of nourishment—and blight from the extensive propagation of a minute fungus.

Blight from cold winds, is usually confined to those from the east and northeast, and is felt chiefly in the spring by its effects on fruit. Blight originating in heat and vapor, generally occurs in the summer when plants have attained their full growth, and when there are no cold weather or winds to produce it. Blight from want of nourishment is found in grain on thin poor soils, where the plants have been prematurely forced into blossom, and the ear ripens, or dries, before it is filled. Blight from fungus propagations are the most common and injurious to grain. It generally assumes the appearance of a rusty looking powder, soiling fingers or clothes when touched; and when in sufficient quantity to seriously injure the crop of grain, gradually passes into dark patches or lines on the stalk or leaves, effectually preventing any further ripening of the straw or grain, until dried by cutting and curing. Fields of wheat are injured by rust or blight in the most irregular and capricious manner; and there is reason to suppose that the cause or causes are not yet perfectly understood. One of the most plausible conjectures perhaps is that of Grisenthwaite in his New Theory of Agriculture, viz: that in many cases in which blight attacks grain, it may be for want of the peculiar food requisite for perfecting the grain, it being known that the fruit or seeds of plants contain primitive principles not found in the rest of the plant. Thus the grain of wheat contains gluten and phosphate of lime, and where these are wanting in the soil, that is in the manured earth in which the plant grows, it will be unable to perfect its fruit, which of course becomes more liable to disease. The fungus or rust of wheat is called the *Uredo linearis*, and as a fungus something similar in appearance was found on the common barberry bush, *Berberis vulgaris*, it is a general opinion among farmers that this bush is the cause of blight in the grain fields of its vicinity. This would seem to be an entire error; as microscopical observation shows the fungus to be entirely different in its form and growth from the grain fungus, and that therefore the one species cannot proceed from the other. Some have supposed that instead of being a fungi, the rust of wheat was merely an exudation of its juices through the ruptured vessels of the plant, and this loss of sap occasioned the shrinking of the grain.

Considerable observation of the state of grain previous to, and during the appearance of blight, and the microscopical growth and spread of the rust or fungi, has induced us to suppose that in most cases, the operation of both these causes, viz: the bursting of the vessels, and the spread of the fungi, are present in blight. The first appearance of the rust is usually in patches on the leaves, and it spreads to the stalks of the wheat, only when the state of the weather and the plants is such as to justify the supposition of the exudation of sap. If the stem is partially dried or ripened the sporules or seed of the fungi, seem spread over its surface in the exuded but dried sap, like a reddish or yellow varnish. If the stem is green, as in the case of late grown or winter killed grain, at the time of attack, the flow of sap continues through the ruptured vessels, and the sporules finding in this moisture a convenient nidus, or place of growth, penetrate the openings with their roots, and assume the linear appearance so characteristic of this disease. The rapid propagation of this fungus, will not be matter of wonder, when it is remembered, that it passes through its stages of growth and ripening its seeds in little more than twenty four hours; and that according to Ehrenburg some species of fungus contain 250,000,000 of seeds. The minute particles that make the smoke of the common puff ball are the ripened seeds of that fungus; and those of the *Uredo* are so small as to be undistinguishable except in masses, without the aid of the microscope. If the rupture of the vessels of the plant, as we suppose, is owing to excessive heat and moisture, by which they are overcharged, while the cuticle or skin of the plant is weakened and softened, it does not appear that much can be done by the effort of man to prevent the disease. Grain grown on favorable soils, properly prepared, and that comes to maturity early, is more likely to escape blight, that that grown on unfavorable soils, or that which, owing to any cause, is late in coming to maturity, as the hot wet weather of July is likely to find such late wheat in a proper state for the development of the disease. The most probable means of prevention would seem to be, to free the grain from the superabundant moisture that softens the stem at times when the state of the atmosphere would seem to be favorable to the bursting of the vessels by increased circulation, and this may be done by sweeping the fields with a rope drawn by two men over the heads, the men walking in what are called the clearing up furrows to prevent trampling the grain.

The roots of the wheat plant are liable to be attacked by grubs and worms, the larvae of various beetles; among which the most destructive are those known as the wire worm, the larvae of the *Elater segetis;* and the red headed large white grub, the larvae of the May bug, cock-chaffer, or black bug of summer evenings, *Melolontha vulgaris.* These sometimes commit serious ravages on the roots of grasses, corn, and wheat; but usually where found at all, their number is so limited as not to prove very injurious to the crops. Both of these grubs or worms live some years in the larvae state, in which they are most destructive; and where the ground will admit of very late ploughing, it will most likely prove the most certain method of destroying them, to expose them in this way to the severe frosts of winter. The perfect insect of most varieties of night-flying beetles, the May beetle particularly, is very easily attracted by light, and this propensity has been made use of for their destruction in great numbers. Where they appear in the summer, it is but for a few days most commonly, and on these evenings, by kindling large fires of brush, shavings, &c. all the bugs of the vicinity will be attracted by the light, and perish in the flames. Thousands may be destroyed in this way, and thus new deposits of eggs in the soil be prevented.

But the insects that attack the wheat while growing, and in the ear, are far the most formidable enemies of that grain the farmer is compelled to encounter; and of these, two are the most conspicuous, and have made themselves known and dreaded wherever they have appeared by their frightful ravages, viz: the Hessian fly, the *Tipuli tritici* of Linn. and Mitchell; the *Cecidomyile destructor*, of Kirby and Swainson; and the wheat fly, the *Cecidomyile tritici*, of the later writers. Of these insects we may hereafter furnish drawings for the Farmer, though both are now so unfortunately common, as to require but little care to detect them in their operations. The Hessian fly has been known in this country for more than half a century; and has at times destroyed entirely, in many places, the wheat crop so as to leave nothing for harvesting. This fly deposits its eggs in the young grain, both in the fall and spring, near the joints of the root, within the leaf. Here the worm is hatched, and preys on the juices of the tender stalk, and when they are numerous the plants turn yellow and die, from this abstraction of sap. The larva remain in the ground over the winter, and assume the form of the perfect or winged insect in May, or in season to deposit their eggs in spring grain. As they undergo two transformations within the year, no effectual method of destroying them has yet been discovered; though it has lately been said, that feeding the plants as close as possible to the ground, if the insect is discovered in the fall, will save the field from their ravages. Sheep are the best for feeding, as they gnaw the plants close, and their feet injure the roots less than other animals. A late Pennsylvania journal has asserted that the Hessian fly deprives itself of its wings previous to depositing its eggs within the leaf plant. We have observed the habits of this insect with some care, but have never noticed such a shedding of the wings. We do not deem it incredible, however, as an instance perfectly analagous occurs in the case of the female of the common grasshopper, *Gryllus tettigonia*, which as every one may have noticed, deprives herself, or is deprived of her wings in such a manner, that the mere stumps of them are left, and form no hindrance to the body in penetrating the ground and depositing the eggs. Notwithstanding the supposed origin of the Hessian fly, it remains uncertain whether the insect was known in Europe at that time; though it has since become generally known.

The wheat fly, that produces the worm in the ear, and which promises to become the great enemy of the wheat

grower, since, as far as it has spread, it rarely fails of proving fatal to the crop, has but lately appeared among us, and its habits do not appear to be well understood, even in those sections, where it first attracted notice, which was in the vicinity of the North River. The fly has been described by different observers, as red, green, orange colored, yellowish red, and dark colored; and the probability is, that more than one variety of the same species act as depredators. We have observed them carefully, while in the act of depositing their eggs on spring wheat; and we have detected a similar worm, the product of a similar fly, in ripe berries of the raspberry and blackberry kinds. The fly is in general orange colored, with a greenish tinge, which in certain lights gives a rather changeable appearance, and is provided with a retractile ovipositor which when not in use is partially folded under its belly, very much in the manner of that of the common bot fly of horses. This instrument is used for placing the egg in immediate contact with the berry while in its softest state, and sometimes the glass will detect three or four of these little worms playing on a single kernel. Most generally, however, there is not more than one to a berry, though there may be a dozen in the ear. The worm or larvae is a yellow worm about half an inch in length, and if the wheat is threshed immediately after harvesting, may, where it exists, usually be found in large numbers in the screen boxes of the fanning mill. When it leaves the ear, as it generally does before the wheat is cut, it falls to the ground which it penetrates, and remains in the larvae state until with the returning year it becomes a perfect insect, and renews its attack on the blossoming and earing grain. Perhaps no single insect has attracted more notice than this in this country, or caused more exertion to discover some method of destroying, or preventing its attacks, and we regret to say, thus far with very little success. Much was expected at one time from the application of lime to the ear; but subsequent experience has not justified the hopes at first entertained. Perhaps in some cases the fault has been in the lime, not being fresh or quick, as it clearly should be when applied; and perhaps the application was delayed so long that the mischief was already done, and the worm safe from the effects of the lime. Has sprinkling the ears, when attacked by the fly, with lime water, ever been tried? We think such an application of the proper strength would be fatal to the egg or the worm, and might be disagreeable to the fly. Fumigating the field with sulphur has been recommended; and could it be carried into effect at dusk when there is a little dew on the grain, and the fly the most active, there can scarcely be doubt of the effect. The sulphurous acid that would be thus generated, would be fatal to flies, as experience proves it to be to bees and other animals, when respired. We are inclined to think, that eventually, fall ploughing of all lands where the preceding crop has been injured by the worm, will be found the most easy and effectual remedy, by destroying the insect while in the larvae state, and thus preventing the appearance of the perfect insect. The same worm that is found in the wheat head, we the last year detected in oats, and it is well known to attack barley, so that it may be considered the general enemy, of all the cereal gramineæ, and should be guarded against in all.

The length to which this article has extended will prevent our saying any thing on the varieties of wheat; as of these every farmer can judge for himself. We may remark however that the white wheats are the most valuable for flour, and that of these the white flint, in the estimation of millers, stands at the head. Of the spring wheats the Italian has attracted considerable notice, as has also within the past year, the Tea wheat and the Siberian. As stated however in our former article, any number of varieties, and any desired qualities can be readily propagated, by care in selecting and cultivating, and by crossing varieties, as practiced by Knight and others in Europe; and it is probable that kinds superior to any we at present possess may in this way be produced. Skill and science are here, as in many other instances, but the handmaids of agriculture.

☞ A "*Livingston County Farmer*" next week.

METEOROLOGICAL TABLE,

Kept at Rochester, for Seven Years, commencing January 1, 1831.

Synopsis of temperature, weight or pressure of the atmosphere, depth of rain and snow, temperature of the earth deduced from that of spring water, &c. &c.

TEMPERATURE OF THE AIR.

Months.	1831	1832	1833	1834	1835	1836	1837	Ave tem. of mo. for 7 ys.
January,	23	26.4	31.4	26	30.1	27.6	24.1	26.9
February,	23.5	26	26	37.5	22.4	21.7	28.5	26.5
March,	41.8	38.6	35.4	38	35.5	29.7	34.4	36.2
April,	47.5	47.4	52.5	51	44.8	44.8	41.8	47.1
May,	59.7	57.2	62	60.7	59.8	58.5	55.7	59
June,	71.6	70.3	62	65.7	65.9	66	65.8	66.7
July,	71.3	74	70.9	76	72	72	68.8	72.1
August,	71	70.5	68	73.8	68.7	65	67.9	69.2
September,	60.9	62.8	63.5	65	57.7	61.3	61	61.7
October,	51.5	52.6	49.5	51.7	53.8	44.4	47.6	50.1
November,	38.9	41.5	40.4	40	41.3	38.9	42.6	40.5
December,	19.5	31.5	31	30.4	28.5	29.4	32.1	29.7
An. Means	48.4	50.1	49.6	51.3	47.5	46.6	47.5	48.7

The mean temperature for every day of the seven years, deduced from the above table, is 48.7; and may fairly be considered the true temperature of this locality.

It has been observed that the medium of the extremes for the year is a near approximation to the mean temperature of the place of observation. The extremes for the past seven years have been registered, and the subjoined table will show with how much truth the remark may be applied to this place.

Years	Months.	Day	Lowest temp.	Months	Day	Highest temp.	Medi. of ex
1831	Feb.	7	4 below 0	June,	3	95 above 0	45.5
1832	Jan.	27	6 below 0	June,	25	88 above 0	41
1833	Jan.	17	4 above 0	July,	21	91 above 0	47.5
1834	Jan.	4	10 above 0	July,	9	95 above 0	52.5
1835	Feb.	3	3 below 0	June,	11	90 above 0	48.5
1836	Feb.	2	5 below 0	July,	19	87 above 0	41
1837	Feb.	13	2 above 0	July,	13	88 above 0	45

The extremes of the registers, made at 10 o'clock, furnish a medium differing somewhat from the above, and are as follows:

Years	Lowest temp at 10 o'clock.	Highest temp at 10 o'clock.	Med of ex.
1831	Feb. 6, A. M. 2 above 0	June 12, A. M. 90 abv. 0	46
1832	Jan. 26, P. M. 4 below 0	June 25, A. M. 88 do.	42
1833	Mar. 2, P. M. 2 above 0	July 24, A. M. 84 do.	43
1834	Jan. 4, P. M. 12 above 0	July 9, A. M. 86 do.	49
1835	Feb. 7, P. M. 4 above 0	July 19, A. M. 83 do.	43.5
1836	Feb. 1, P. M. 2 below 0	July 7, A. M. 82 do.	40
1837	Jan. 2, P. M. 2 below 0	July 1, A. M. 80 do.	39

It will be seen from these tables that the medium of the two extremes for the year, differs widely in some instances from the true temperature, and in every year is too much at variance with the actual result to be relied upon.

Our registers have been made at 10 o'clock, morning and evening, and for the reason that these will in all cases give a mean daily range approximating nearer in the aggregate to observations made every hour, than two made at any other points of time. We have carefully noted also, sudden and remarkable fluctuations, which are beginning to be quite too common and severe to pass unnoticed; but we have neither time nor space at present to refer to them.

Annexed is shown the temperature of the seasons, beginning with the spring of 1831, and a notice of early and late frosts for seven years.

Year.	Spr. mo.	Sum mo.	Fall mo.	Win mo.	Late frost	Early frost
1831	49.6	71.3	50.4	25.4	May 10	Sept. 30
1832	47.7	71.2	52.3	23.9	May 24	Oct. 15
1833	49.9	66.3	51.2	30.6	April 26	Sept. 10
1834	49.9	71.7	52.2	29.1	May 15	Sept. 28
1835	46.7	68.8	50.9	27.5	May 21	Sept. 29
1836	44.3	67.6	48.2	25.9	May 13	Sept. 29
1837	43.9	67.5	53.7	27.2	May 3	Aug. 4
Aver. 7 years	47.4	69.2	51.2	27		

The frost of August, 1837, was not general in this section, and vegetation in this city was not interrupted until Sept. 20, on which night it was more severe.

The temperature of the earth, deduced from that of spring water, it has been clearly demonstrated, differs but slightly from that of the atmosphere. It will however be observed, that there is a want of correspondence in periods so short as that of a month, and for reasons obvious enough, and hence for a shorter time than one year these observations can be of little use. There is, however, a popular error, that well or spring water, (the terms are used synonimously,) is warmer in winter than in the summer, which a reference to the following table of registers, made accurately once a month, will correct.

Month.	1831	1832	1833	1834	1835	1836	1837	*Average.*
Jan'y,	37	39	35	39	43	48	38	38.4
Feb'y,	36	37	37	39	40	46	41	38
March	38	38	36	42	40	46	39	39.8
April,	42	41	41	45	40	46	41	42.2
May,	48	48	50	45	44	45	44	46.2
June,	52	50	52	49	51	50	49	50.4
July,	58	54	54	55	56	54	54	55
Aug.	60	56	56	59	54	54	59	56.8
Sept.	57	56	55	59	55	58	59	57
Oct.	54	53	55	53	56	54	54	54.1
Nov.	48	49	50	46	52	48	49	48.8
Dec.	40	44	42	41	50	42	44	43.2
Mean for year.	47.5	47	46.9	47.5	48.4	49.9	42.5	47.3

Mean temperature for 7 years, deduced as above, 47.3.
Mean temperature for do. by first table, 48.7.

The temperature of all large towns is higher than the country about them, or even their immediate vicinity; owing in summer to the reflection of the sun's rays from many non-absorbing surfaces, and in winter to the existence in a small area of many fires. Hence the discrepancy in the result of the observations made in the air and in spring water.

BAROMETRICAL TABLE,

Giving the mean monthly range of the Mercury for seven years.

Mon.	1831.	1832.	1833.	1834.	1835.	1836.	1837.	Average of months.
Jan.	29.45	29.56	29.42	29.67	29.54	29.60	29.43	29.53
Feb.	29.70	29.63	29.51	29.54	29.56	29.63	29.48	29.58
Mar.	29.39	29.44	29.50	29.58	29.59	29.60	29.65	29.53
Apr.	29.38	29.48	29.54	29.52	29.41	29.62	29.44	29.48
May,	29.42	29.51	29.51	29.48	29.50	29.56	29.49	29.49
June,	29.53	29.50	29.42	29.38	29.48	29.56	29.43	29.47
July,	29.49	29.50	29.51	29.55	29.48	29.54	29.48	29.50
Aug.	29.61	29.60	29.49	29.50	29.49	29.43	29.54	29.52
Sept.	29.50	29.54	29.54	29.57	29.55	29.61	29.67	29.57
Oct.	29.54	29.50	29.46	29.68	29.52	29.55	29.69	29.56
Nov.	29.44	29.51	29.48	29.37	29.60	29.51	29.59	29.50
Dec.	29.49	29.47	29.56	29.60	29.56	29.60	29.57	29.55
Annual Mean.	29.49	29.52	29.49	29.52	29.52	29.56	29.54	29.52

Thus the average weight of the atmosphere in Rochester for the past seven years has been 29.52 inches for every day of that time. The fluctuations observed during the entire period have been less than 2 inches, to wit:

March 9, 1831, lowest range, 28.40.
Jan. 13, 1834, highest do. 30.20—differ. 1.80 inch.

RAIN AND SNOW.

The following tables exhibit the depth of rain in inches for every month of the past 7 years; and also that of snow, measured in every case as soon as it ceased falling.

RAIN.

Months.	1831	1832	1833	1834	1835	1836	1837	Aver. fo months.
January,	.3	.9	1.4	.3	1.3	.....	.5	.67
February,	.5	.4	.....	.5	.8	.....	.5	.38
March,	1.8	.8	.1	1.5	.5	.5	3	.78
April,	.8	1.5	1.8	2.2	2.6	3.6	.5	1.85
May,	2.8	4.3	6.1	.3	1	5.5	3.5	3.35
June,	3.4	1.2	2.6	1.9	4.5	3.6	3.5	2.95
July,	5.4	4	3.8	1.8	1.8	2	2	2.97
August,	1.2	2	2	1.8	3.5	1.8	3.5	2.25
September,	2.4	1.7	1.5	2.1	2.5	2.8	2.3	2.18
October,	4.2	2.3	1.3	3.4	5.4	3	4.4	3.42
November,	1.6	2.8	1	1.8	1.5	2.8	3	2
December,	.....	2.4	1	.5	.5	1.5	2.5	1.12
Amount,	24.4	24.3	22.6	18.1	25.9	27.1	29.2	24.5

Average depth of rain in one year, 24.5 inches.

SNOW.

Months.	1831	1832	1833	1834	1835	1836	1837	Aver. for months
January,	15	15	11	13	7	29	16	14.1
February,	33	29	35	9	19	10	28	24.1
March,	5	9	7	8	16	11	3	8.4
April,	2		1	2	9	2		2.2
May,	6			4				1.4
September,						1		
November,	3	6	8	2	7	6	8	5.7
December,	13	13	13	14	10	9	7	11.2
Amount,	77	72	75	52	68	73	62	68.4

Average depth of snow in one year, 68.4 inches.

The amount of water contained in snow can only be

ascertained by melting it, and must continually be varied by the temperature when it is falling. We will, however, suppose one foot of snow to contain .75 inches water; this added to 24.4 inches, the actual amount of rain in one year, presents the following result:

From 68.4 inches snow, 4.27 inches water.

Add annual depth rain, 24.4=28.67 inches.

The amount of rain for the different seasons can easily be deduced from the above table. We will only add, that for the three months of October, November and December, 1837, the amount is 9.9 inches, which is 2.5 more than fell during the same period in any of the seven previous years, and more than one-third above the average of the six preceding.

Productions on the same Parallels of Latitude.

It is very generally supposed that on any given degree of latitude in the same country, or on opposite sides of the ocean, that a similarity of vegetable productions must exist, or at least can be cultivated if required. This opinion is very erroneous in point of fact, and we think to a neglect of this truth, some mistakes in agriculture have occurred in Europe and in this country. For instance it has been supposed that trees, shrubs and plants growing on the eastern shore of the Atlantic, would flourish on this side, in any section of country embracing the same degrees of latitude. We frequently hear it remarked, when speaking of the vine and mulberry, that they flourish in Europe several degrees further north than the middle or even N. E. states: and the inference is that they cannot fail of succeeding here. We trust they will, but the fact of similarity in latitudes is no proof that such will be the case. Modes of farming are sometimes adopted in this country because they are successful in England or France; when that success is depending, and the modes must be justified, solely by the peculiarities of climate, and in points too, where the difference between theirs and ours is extreme. The general principles of European farming are what our farmers should be made acquainted with; the adaptation to particular places, or the adoption of particular plants, must be left to the judgment of the farmer, or be determined by experiment. The average temperature of Great Britain is higher than that of the middle states, yet in these corn flourishes abundantly, while in the former it cannot be cultivated; the reason is, the average warmth of the three summer months is far greater here than there, and in the winter is much lower. Corn, which requires great heat for its perfection, of course does not ripen there; on the contrary many plants and shrubs will flourish well there, that are unable to undergo the severity of our winters without protection. In England the range of the thermometer is not one half as great as in the northern part of the United States, or in places of the same latitude on this continent.

Since the researches of Humboldt, and other philosophers, have been directed to the subject of temperature, it has been discovered that between the western and eastern sheres of the same continent, there is usually a difference of from 10 to 12 degrees of latitude in temperature; the western coast being the most elevated, and consequently vegetables can be grown at such points, the cultivation of which on the same parallels of latitude would be utterly impracticable on the eastern coast. This important fact, has received a curious illustration in our own country. The mouth of the Columbia river in this country is on the Pacific ocean in latitude between 45° and 46°, about the same with that at Mackinaw, Montreal, and the state of Maine. The following extract from the letters of Mr. Spaulding, a missionary in that region, will show what the difference is between the productions of the places named, and that. Mr. Spaulding is giving a description of the garden and farm of the principal agent of the H. B. C., Mr. McLaughlin:

"About five acres are laid out in order, and stored with almost every species of vegetable fruit and flower; and among them figs, citrons, oranges, lemons, pomegranates, cotton plants, and all common fruit found in the United States. Dr. McLaughlin's farm is the largest on the Columbia river, and produced last year 4,500 bushels of wheat, 4,000 of peas, 1,700 of barley, 1,500 of oats, potatoes not gathered, corn but little. His horned cattle are 750, swine 400, and from 200 to 300 horses. He has also a flour mill, and saw mill, the only ones west of the Rocky Mountains."

A comparison with the productions of this spot and those grown in this part of the United States can be readily made, and will illustrate what we have said of the difference between the United States and the western coast of the European continent. At New Orleans and Florida the fruits mentioned by Mr. Spaulding are cultivated, but in no other parts of the states; and these places are in latitude 30°, fifteen degrees farther south than the mouth of the Columbia. The difference is as great between the States and Europe. Thus New York and Boston, do not vary much from the latitude of the south of France, Italy, and Greece, countries famed for the orange, vine, and olive; the cultivation of which it would be idle to attempt here as there. The difference does not lie in our summers but in our winters; the ocean breeze in all countries has a tendency to equalize the temperature; and this is always more felt on the western than on the eastern shores of a continent. All the eastern parts of a continent, are on the contrary, exposed to all the depressions and fluctuations of a land wind; and these we have seen are equal to at least twelve degrees of latitude in their effects on vegetation. In the cultivation or selection of plants, or the introduction of modes of farming, these things should be constantly in mind, and in that case our farmers may hope to avoid the disappointment that must result from systems or processes founded on the peculiarities of climate, and therefore not adapted to other countries, or circumstances.

Sheep and Calves.

The fore part of the winter it should be recollected is the trying time for these animals, for if they pass the first half of the winter in good heart and condition, they rarely fail of coming out well in the spring, unless gross negligence produces a different result. The winter thus far has been one of the most mild and open, ever known in this latitude; and where these and other animals have had ordinary care taken of them, they can hardly have failed of doing well. There is reason to fear, however, that these very favorable circumstances may in the end prove injurious to the flocks and herds of the farmer. If sheep and young stock, are allowed when the ground is bare of snow, to range at their leisure over the meadows and fields, without being properly fed at the barns, they will be found to fall very rapidly, and when cold weather comes they will be in a poor condition to resist its influence.

Unless there was at the commencement of winter a very heavy covering of grass on the fields, it is bad policy to allow animals to wander over them at all, while they are bare of snow; and nothing can be more injurious to grass, especially clover, than to have during the winter months, the crown of the plants eaten off, as they frequently are by sheep or other stock. There is another injury too that results from having meadows or pastures trampled by cattle when the ground is unfrozen in the winter; and that is by the poaching of the soil, and the consequent exposure of multitudes of the roots of the grasses to frost and destruction. Let farmers then keep their stock about their barns unless the ground is frozen, and even then, if it is found their condition or appetite is failing.

Flocks of sheep should be frequently examined and the weak or failing ones placed by themselves that they may receive extra care and attention. Sheep are a profitable animal for the farmer, furnishing a double profit as it were; one arising from the fleece, carcase, and increase; and the other from the aid they afford in manuring fields for the reception of other crops. If, however, the loss, as is too frequently the case, is some eight or ten in the hundred during the season, it is evident the profit must be materially reduced. And this loss may in most cases be avoided by proper care and attention in separating the flocks, in feeding salt and roots, and in giving the weak and the lambs that additional care they require.

COMMUNICATIONS.

On the Use of Lime in Western New York.

Editors Genesee Farmer—It must be apparent to every observant farmer in Western New York, that the time has fully come in which a due regard to the interests of agriculture will dictate the necessity of resorting to some efficient means of *restoring* and perpetuating the fertility of our soil. The general failure of our wheat crop for the three last years is not chargeable, wholly, to inauspicious seasons. No inconsiderable portion of this failure may, I believe, be justly referred to *hard service without remuneration*—a course of policy from which good returns cannot be expected for any considerable length of time, even in reference to *inanimate* matter.

Impressed with this view, and with a desire to turn my winter months to the best account, I have contracted for one thousand bushels of lime, which I propose to haul and apply upon my farm in the course of the present month, or the early part of next, if not otherwise advised. But, like many others in this country, I have resided a great portion of my life on a soil so fertile by nature, as to require, hitherto, but little from the aids of art or science, and consequently I find myself deficient in information, particularly in regard to the use and application of lime as a manure. Although I have read a good deal in the Genesee Farmer upon this subject within a few years past, yet I have not met with any thing answering exactly to my present wants. I therefore submit the following interrogatories, with a hope that some person possessing the double advantage of science and experience will, without much delay, favor me and the public with full and explicit answers, based upon these essential pre-requisites.

First. In general, upon what kinds of soil does lime act the most beneficially?

This query is suggested by a consideration of the fact, that the soils of Western New York are so various, that there is scarcely a farm which does not include a number of kinds, and by possessing the requisite knowledge, the most judicious application may be made.

2d. How will it answer to spread, during the winter, a light covering of slacked lime, say 40 or 50 bushels per acre, upon wheat in the ground, on *sandy* and also upon *clay* soil?

3d. How will it answer to spread, during the winter, a like quantity on meadow land, moderately wet, and also upon sandy clover-lay, with a view to plough for wheat the ensuing summer, either *before* or *after* mowing.

It will be perceived that one object had in view is to ascertain whether lime can be successfully applied to the soil during the winter season. If it can, a portion of our winter months may in this way be employed by the farmer to great advantage, when he can do little else to account. Labor is then cheap, and teams unemployed.

Do me the favor to furnish, or obtain for me the information sought, and the result of my experiment, (for an experiment it is, so far at least as relates to Niagara county,) shall be offered to the public as soon as it shall be ascertained. One word more. If the farmer can devise ways and means of furnishing employment to the laboring class during the winter to *mutual profit*, I hold that he is in duty bound to do so. J. P. H.

Lockport, 1st mo. 9th, 1838.

REMARKS.

In answer to the first inquiry of our correspondent, it is proper to state, that from the want of experiments with lime in this state, it is difficult to say what soils would be *most* benefited by it. Experiments, decisive in one part of the country, may not, from geological differences, be a correct guide for operations in another. Its powerful efficacy upon sour* sandy soils, and the absolute necessity of its presence in rendering such soils fertile, are well known. It has also been found of great utility on the stiff loams in England, and in this country

* *Sourness* is generally indicated by the growth of broom grass (*Andropogon*) and sorrel.

where tried. Dr. Darlington of West-Chester, Pa. says, in that region its meliorating effects are *most conspicuous* in *clay* soil or *stiff loam*. It may be applied with perfect safety and with great success to *all soils* which do not already contain carbonate of lime in considerable quantity; hence there are probably but few places in the state, where it would not be highly beneficial. The quantity applied must however vary with the fertility, as a heavy dressing on land of moderate strength and richness, may cause a failure. This is the chief reason of the want of success which has sometimes attended the application of lime.

There are many portions of our country, possessing what are termed limestone soils, which in fact contain at the surface no perceptible quantity of lime in a state of carbonate. Such are always benefited by lime. The presence of the carbonate is shown at once in any soil by the effervescence caused when a portion of it, mixed with water, is subjected to the action of muriatic acid. Some of the most fertile soils in Cayuga county in this state, by this test, showed no indication of lime; and such have been greatly improved where lime has been applied.

With regard to top dressing wheat with slacked lime, we are not able to give the result of any experiment; but we should consider the application of a quantity so moderate as 50 or 60 bushels to the acre, as a safe experiment. It is probable however that it would produce but little effect, comparatively, on the present crop. In an experiment where the lime was *harrowed in* with the wheat, there was no perceptible result the first year, though subsequently it increased the productiveness of the land in a high degree.

Top dressing upon grass lands with lime is strongly recommended by many who have tried it; and where it is intended to break up such lands for wheat the next summer, there is probably no better way of applying it in winter; especially if such soils are sandy and in clover. In the south-eastern parts of Pennsylvania, where *magnesian* lime is used, and which from its caustic properties, requires caution in using, the practice of liming grass lands previously to breaking up, is considered as an excellent practice, and is gaining in repute. A correspondent of this paper in Ohio, spread 50 bushels of lime per acre on a field of clover and timothy, (soil not described,) which had been in grass three years, and there was a consequent increase the two succeeding years of fifty per cent. in the crop.

As already observed, the quantity of lime applied must vary with the strength and fertility of the soil. Clay soils will bear a much larger quantity than sandy ones; and those highly manured than those which are not. There are probably few soils in the northern states, which should receive at a time a greater quantity than 200 bushels; half that quantity would in most cases be abundant.

Applying lime *in winter*, is probably nearly if not quite as advantageous as at any other season, except when the object is to cause immediate productiveness by the action of caustic lime on vegetable matter otherwise insoluble. This is not generally wanted, the object commonly being to *retain* the nutritive matter of manure till needed by the plants during their growth; this is especially the case when it is used in the culture of wheat.

J. J. T.

Staking Fences.

Friend Tucker—Wishing to excite a spirit for a more general improvement in this neighborhood, I visited a few of our farmers for the purpose of obtaining subscriptions for the Monthly Genesee Farmer, and with some success. There are some very good farmers in this place, and some very indifferent; and strange as it may seem, it is only the last of them that I found willing to take an agricultural paper. One would reasonably suppose that there could not be found a single individual who cultivates even a garden, but would be willing to pay the small sum of fifty cents for so much information as is concentrated in a copy of the Monthly Genesee Farmer; but there are some who will pay twice that sum in a bar-room in one week, for what injures both soul and body, who will not give a sixpence for what they need, but enough.] Some are too wise to be taught.

As I have taken my pen to write to you respecting the above, I will here mention an improvement that lies within the reach of every farmer; that is, good fences. In most of western New York the land is so level that the farms may be laid out in the most beautiful manner. What shows a man's taste more than the way in which his farm is fenced; when I see a farm laid out in square fields, the fences running in straight lines, east and west, and north and south, well staked, I put such a man down as a good farmer—as one worthy of the name, and upon inquiry I generally find that he takes an agricultural paper. Some indeed object to staking their fences, because they say they are in their way about ploughing; yet I have known such people lose more grain in one season than would stake them well and pay for the ground they would occupy; besides there is a way by which it can be done and yet have the stakes out of the way, viz: by doing it in the same manner that fences are generally locked with rails, only with this difference that the foot of the stakes stand about in a range with the corners of the fences. This looks well, and the fence will take no more room than it would without stakes. A. S.

Le Roy, Dec. 29, 1837.

Planting and Horticulture.

Mr. Tucker—I am much pleased to perceive from the first No. of the present volume of the Farmer, that you have engaged Mr. J. J. Thomas to prepare a series of articles on the subjects of Planting and Gardening; and these are matters of great importance to all, and but little understood among farmers in general. The experience of Mr. Thomas in such matters is proved by what he has already written; and his scientific skill, and knowledge of natural history, will save him from many errors into which ordinary writers on these topics would be liable to fall. A garden is indispensable to the comfort of every family, and most usually, a good one is far cheaper in the end than a poor one. The professional man, and the mechanic, will on this point, I am confident, find much to interest and benefit. The planting of trees, is essential to the prosperity of the farmer, and adds much to the beauty as well as to the profits of a farm; and the best methods of doing this; the different kinds of trees suitable to our climate; their proper soil and culture, will furnish fruitful themes for the experienced pen of Mr. T. As I am in the habit of looking to the Farmer for many valuable suggestions in rural economy, I anticipate much pleasure as well as benefit from this particular department, and am confident I shall not be disappointed. A Young Farmer.

Farming in Seneca Co.---Inquiries.

Mr. Tucker—If you think proper to give the following a place in your paper, you may. The farmers in this section of country, are trying hard to get rich by some means or other---they have been in the habit of sowing flax on their ground in the spring, for the seed, and wheat on the flax stubble in the fall, instead of subduing their ground thoroughly by a regular old fashioned summer fallowing; and that is not all, they have many of them been careless in procuring their seed, so much so, that it will take them months and years to clear their farms of mustard, which some of them have been honest enough to tell me was got by sowing flax. But the most of the flax growers say they are done with it; and they will try spring wheat next spring, and then winter wheat in the fall on the same ground; and that, I presume, will answer a better purpose than flax, although I think this new plan of farming by double cropping, if continued, is more than is profitable for the good of the land.

My own plan is not to run my farm so hard as to reduce the strength of the soil, but of the two, rather add to it by sowing clover in the spring on all ground on which I sow wheat in the fall, and raise a crop of seed. A crop of clover seed is worth a crop of wheat, when the expense of raising and fiting for market is deducted, and clover is the best article that can be used to keep land in good order for wheat.

I wish to enquire through your valuable paper, what is the value of spring wheat in proportion to winter wheat? What would be an average crop? Whether it would be a profitable crop to cultivate in a country that is good for winter wheat? Whether there would be any better chance for winter wheat on spring wheat stubble, than on winter wheat stubble? and also will it answer as good a purpose to the manufacturer for the New York Market? I wish some one, who is well acquainted with the article, would answer the above inquiries through your Monthly Genesee Farmer. A Young Farmer.

Seneca County, N. Y., Dec. 1837.

The Road Laws.

Continuation of Judge Bradley's *Address to the Skaneateles Agricultural Society.*

Hitherto my remarks have been chiefly intended to set forth the use and urge the claims of agricultural societies. This subject should be presented to the next Legislature, with petitions to have it duly considered by that Honorable body, and acted upon according to the dictates of sound policy.

There is another subject which I am about to introduce, and, in my opinion, it needs legislation no less than agriculture, or any other subject. A healthy, and an efficient system of road laws is greatly needed in this state, and for the want of such a system, the inhabitants are obliged to submit to prodigious losses and inconveniences. With a degree of patience rarely witnessed, the people of this state have too long endured the evils resulting from a system of road laws, utterly inadequate to the uses for which it was designed. However fit for use this system might have been, in the infancy of society when it was introduced, it is in no proper sense adapted to the present exigencies of the country. It is not my intention to expose here the rottenness of our road system. This has been done sufficiently. That the system is rotten to its very core, and utterly unfit for use, is, I believe, generally understood. In consequence of continuing in use this rickety system, the state annually submits to a loss in labor misapplied, equivalent to nearly two millions of dollars. This is no trifling thing; it is a serious evil, yet, great as the loss is, it is almost nothing, in comparison with other evils resulting from the same cause. A far greater evil is realized in the bad condition of roads. The common roads of this state, with few exceptions, and those chiefly in places where nature has made good roads, are deplorably bad. This is an unnecessary, and it should be deemed an intolerable evil. I have not the least doubt, that, if the road tax were levied in money, and faithfully and skillfully applied, a sum equivalent to less than half of what is now expended, would be sufficient to place all our common roads in an excellent condition. Are the advantages of good roads, as they relate to the value of property, as well as to the speed, safety, and pleasure of traveling, duly considered? In regard to this subject, a general and strange apathy seems to have prevailed.

Perfectly good roads in all places, such as will always be dry, and sufficiently hard to resist effectually the impression of wheels, are not soon to be expected. In commencing a system for the improvement of roads in this country, *perfectly good roads* should not be the objects immediately aimed at. Yet, such may be the objects of ultimate pursuit. From my own experience, in having, the last two seasons, the oversight and care of an extensive road district, containing nearly four miles of road—a district too presenting peculiar difficulties, I am convinced that, at an expense much less, than that to which we have been accustomed to submit, we can have good roads in all directions. The roads of which I am speaking, and at the attainment of which I would immediately aim, are such as will present a perfectly smooth surface—such as will be sufficiently hard, except during a few weeks in autumn and spring, to resist the impression of wheels—such as will present no obstruction either by stones, great or small, or any other obstacle. On such roads as I am now attempting to describe, travelers, although driving at full speed, will have no cause to slacken their pace *any where*, on account of imperfections in the roads. Would not the attainment of such roads be realized as a valuable improvement? There is no difficulty in arriving at such attainments. You, gentlemen, will, I trust, pardon the egotism, when I say that, for several months during the late peculiarly wet season, the roads of the four mile district which I had the oversight, answered to the description I have now given. At times of peculiar humidity, and especially a few weeks in fall and spring, roads in this country must be expected to be muddy, but even then they need not be bad. Deep holes and ruts need not, at any time, be allowed to come into

existence on the roads. You will perceive, gentlemen, that I have been describing a condition of common roads, which I consider as attainable at half, or less than half, the expense now required for the use of roads. If the people of this state will, under a new and proper system, submit to be taxed for the use of roads, as heavily in money as they have been in labor, wonders may soon be achieved in the improvement of our common roads.

It should be better understood than it is, that making roads is an art, for the practice of which an apprenticeship is needed no less, than for any other art. Without having served an apprenticeship to the business, or without great observation and experience, no man, however distinguished for business talents, is competent to have the care and management of roads. Of course, men having the requisite qualifications, to direct the making and repairing of roads, are extremely scarce. How preposterous then to confide this important concern to path-masters, elected annually—elected too without the least reference to their qualifications.

The wretched condition of the country in regard to common roads, as well as the great waste of public treasure in sustaining the present system has, for a long time been well known. Petitions have, from time to time, been sent up to the Legislature, stating the evils complained of, and praying for a revision of the road system. With only one, I believe, honorable exception, these petitions, being referred to committees, were readily, yet ungraciously disposed of, by negative reports. So frequent have been such rebukes, and so certainly almost are they to be looked for, when petitions are sent up relating to the common interests of the country, that little encouragement is felt to apply to the legislature for relief in such cases. When petitions are offered for signatures, it is a common answer, 'yes, we approve the object, it is important, but it will do no good to apply to the Legislature.' It is manifest that, in a state of things like this, *all* is not right. Why has it been so? The truth is, the Legislatures of this state, now for a long series of years, have had their attention chiefly directed to magnificent achievements. While their eyes were dazzled with splendid objects, they could not look to the common, less dazzling, yet equally important, interests of community. Permit me here to offer a remark, by which I hope to illustrate the subject of my discussion. In my long experience in business, I have found it no less important to attend to little things, than to things of greater magnitude. A proper attention to minor concerns is absolutely essential to successful practice in any sort of business. The farmer who devotes his attention almost exclusively to splendid achievements of culture, and at the same time, neglects other things of less notoriety—suffers Canada thistles, and other noxious weeds, to encroach upon his farm—suffers also his fences to get out of repair—cattle to break in and destroy his crops—bars and gates to be broken down, and countless other similar things—the farmer who practices in this way, is not a good manager of business, neither can he, in the end, expect successful results. The principle is of universal application, and I intend here to apply it to legislative proceedings. Within the period of the last twenty years, the Legislatures of this state have done many noble things. They have given their sanction to, and assisted in carrying into effect, many splendid and magnificent achievements. So far, they have done themselves great honor, and done well too for their country. But I regret to say, they erred exceedingly, in neglecting many other things, less dazzling, but equally important. "These things ought ye to have done, and not to leave the other undone." Legislatures should have taken care, while their splendid operations were going on, to see that the agriculture of the country kept pace with other magnificent improvements. They should have taken care too, while authorizing vast expenditures for rail-roads, to see that the common roads of the country were placed in a corresponding condition. Had these things been done, legislative proceedings would have been admirably consistent and harmonious. For the policy which suggests the expediency of bringing canals and rail roads into existence, suggests also that of improving agriculture and common roads. Between these several distinct interests, there is an intimate connection. They are all handmaids, the one to the other.

While urging as I do the importance of having a radical alteration in our system of road laws, it may be proper for me to say, I do not expect that all the evils now existing and growing out of the present system, can, by any legislative action, be speedily remedied. I do not expect that a perfectly good system of road laws will, by one effort, be brought into existence. Nor do I expect that *any new system*, however perfect, will at once be put into easy and successful operation. Like a new machine, it will at first require labor to put it in motion, and most likely, for want of experience and skill in its managers, if not for its own imperfections, it will move rather heavily for some time. But what I maintain is, that our present system of road laws has been endured with much long suffering patience—that it has been for many years, and is now a tremendous burden on community, and that no time should be lost, in terminating its existence and trying the experiment of a new code. It is expected of you, gentlemen, that you will co-operate, by such means as your own wisdom shall suggest, in laboring to effect so important an object.

The bill, reported, two years since, to the Assembly by Mr. Parker, appears to embrace the principles which are supposed to be necessary in the constitution of a good system of road laws. I know not why that bill, with the amendments which Mr. Parker intended to offer, had the bill been acted upon, may not be substantially approved, and recommended to the Legislature for adoption. Doubtless, it requires modifications, and probably too it requires amendments, other than such as Mr. Parker intended to offer. I think provision should be made for the appointment of a county officer in each of the counties, who may be styled, Superintendent of Highways, and whose duty it shall be to superintend all the highways in his county, and assist the commissioners, in giving directions as to the manner of making roads, and keeping them in repair. If I mistake not, this will be of considerable use even at the commencement of operations under the new system, because it may be expected to afford some lights derived from experience, and to render proceedings, in the different towns, more systematic and uniform. But it will be still more useful as the means of bringing into existence an order of professional men, who will receive appropriate educations, and be qualified for distinguished usefulness as road directors. This is *all*, important. As before remarked, road making is an art, it is an art too of no easy attainment.

AGRICULTURAL PERIODICALS.

I am now approximating to a close, yet there is another subject which I desire briefly to introduce. I ask permission, gentlemen, to bring to your consideration the claims of the Genesee Farmer. Agricultural periodicals are among the peculiar privileges of modern times. Privileges they certainly are of a high order. These journals, treating as they do of subjects highly interesting, as well as amusing, and making their periodical visits, are exceedingly useful. They are useful, in a high sense, to all such individuals as take an interest in them, and read them attentively; and doubtless they are to be classed among the most efficient means for improving the general condition of agriculture. To the GENESEE FARMER, Western New York, and counties adjacent, are already indebted to a vast amount. Yet I regret to say, that this journal, useful as it is, greatly needed as it is for the benefit of agriculture, and adapted as it most happily is, to the exigencies of the country, *labors* for want of patronage. At no time, has it been sufficiently patronized to render its puclication a profitable concern to its proprietor. During several years of its existence, he has published it to his own serious disadvantage. At the present time, he publishes it, for the want of a more liberal support, under great embarrassments, and to his own individual damage. These things do not tell well of patriotism, and intellectual attainments in this section of country.

The Genesee Farmer is the offspring of Western New York. It came into existence at the urgent request of many of her citizens, and although patronized by only a few comparatively, yet it has been the means of doing an incalculable amount of good. The paper itself, for its own intrinsic merit, especially for the amount of useful matter which it publishes, has no kindred superiors in this country. I venture to say that, in Western New York, and in counties still further west, it is better adapted to general use, than any other agricultural periodical now in circulation. I the more urge the claims of this paper, knowing as I do that the worthy publisher, far from being affluent in his circumstances, depends on the incomes of his professional labors, for the livelihood of himself and family. While, for the excellent character of the man, as well as for his peculiar faithfulness as a publisher, I recommend *him* to your friendly regards. I also recommend to the patronage and use of every intelligent farmer in Western New York, *the Genesee Farmer*.

Hitherto, I have spoken only of the Genesee Farmer, by which may be understood the parent paper, which is issued weekly. All the foregoing remarks are intended to apply equally to its legitimate daughter the MONTHLY, deducting only for the smaller amount of matter which it publishes. Wealthy farmers should be content only with the parent paper, for it contains much useful intelligence which cannot be crowded into the Monthly sheet. For this reason too, it should not fail of being received in every neighborhood in the country. But to the use of a numerous class of citizens, who have but little time to read, and not much money to spare, the Monthly is most happily adapted. While the cost of it is merely nothing, the advantages may be great. I wonder that, instead of two thousand, there are not a hundred, or more, thousand subscribers for this invaluable journal. As soon would I be without an Almanac, as without an agricultural periodical.

With great deference, I submit to you, gentlemen, all the foregoing remarks. DAN BRADLEY.

December 12th, 1837.

Every Farmer should, for his own Interest, *be a Subscriber for an Agricultural Journal.*

NO. V.

The subject of my last essay, although the essay was too long, was not treated of to an extent satisfactory to myself. There are, in connection with the subject of that essay, other considerations which it is important to bring into view. Ever since Agricultural Journals began to circulate in the country, there has been a great outcry—tumult I had almost said, about *book-farming*. Book-farming, by which is meant reading books and periodicals treating of agriculture, has been ridiculed exceedingly, as though *reading* with a view to acquire knowledge relative to agriculture, were a great absurdity. Now if it be true, as doubtless it is, that printed language, when employed for the use of agriculture, is capable of communicating ideas intelligibly, it will be seen that this outcry itself is most unreasonable and ridiculous. It will be seen too, that those who make the outcry, are ignorant and self-conceited men.

To that class of farmers who have not attained to a perfect knowledge of their art, (for some there are who suppose they have arrived at such attainments) it is important to have the means of acquiring new and useful ideas in relation to the theory and practice of agriculture. It is only by the acquisition of new ideas that improvements are made in any art. True it is, individuals may, by their own experience, acquire *some* new and useful ideas relative to the arts of husbandry, but the progress of improvement, made by means so limited, is always extremely slow. Individual farmers, having no other means of acquiring knowledge relative to their art, than their own experience, rarely, if ever, do make the least advance in improvement. More frequently, instead of advancing, their course is retrograde. Now the excellency of agricultural periodicals consists chiefly in their bringing to every individual who takes such a periodical, all the lights derived from the experience of the whole agricultural community. Whatever new discovery *one* happens to make for the benefit of the farming interest, it is, through the instrumentality of agricultural journals, readily communicated to every farmer in the country who reads such journals. Is it no privilege to the farmer to have the means of thus easily and readily coming into possession of all the best lights the country affords? Is this a privilege of trifling importance? Do farmers—do the most enlightened farmers, sufficiently appreciate the value of agricultural journals? In my opinion, they are to be classed among the most important improvements of modern times.

But it is said, agricultural journals publish many things which are not true, and thus mislead readers.—They do undoubtedly publish some false doctrines, and what other periodicals are there in circulation which do not the same? It is known that common newspapers publish *much* that is untrue, and yet who, for that reason, objects to the use of them? There are not many books, perhaps none, except the Bible, that are unexceptionable in point of doctrine. The objection then, if it avails at all, must avail to the rejection of all books and periodicals, except the Bible. ECONOMICUS.

From the Farmer's Register.

Observations on the Agriculture and Horticulture of Western New York.

(*Continued.*)

The system of agriculture, in the interior of New York, is so different from that which is practised on the eastern side of the mountains, that it is difficult to institute a comparison between them, with a view to practical results. Here we have, or ought to have, a regular rotation of crops, as indispensable to the improvement of our lands. The field that is now in wheat, must be followed by clover, the ameliorating effect of which during a rest of one or two years, is intended to prepare it for an undiminished, perhaps increased product, when it is brought into cultivation again, assisted by the auxiliaries of plaster and manure. It follows, therefore, of necessity, that a considerable part of every well managed farm—say from one-fourth to one-fifth—must lie in an unproductive state, which is equivalent to an unproductive investment of that portion of our capital. The practice of this sys-

tem exists in the nature of our soil; and where it is not adhered to, the penalty of ultimate impoverishment must be paid, as our extensive waste lands too plainly demonstrate. On the calcareous lands of New York, no such nurture has been found necessary. None of the fields, on any of their farms, are suffered to lie at rest, for the purpose of acquiring renewed energy; but every acre is in profitable cultivation, either for grain or meadows—a judicious alternation of crops being scarcely attended to, or even thought of. Allowing, therefore, that one of their farms was three-fifths of the size of ours, and their land of the same quality, their profits would be the same as are realized in our grain districts. But when we consider that their lands are four or five times as productive as ours, the great advantage that is thus enjoyed in the saving of labor and expense, with the increased amount of products, is at once obvious; and conclusively shows how their farmers become independent, and even rich, by the cultivation of one hundred or one hundred and fifty acres. A farm of this size, by the above estimate, may be regarded as equal in value and profits to one of six or eight hundred acres, of the medium lands of Maryland and Virginia, under good management. These remarks, also, may show the absurdity of recommending small farms as the most profitable to our agriculturists, in imitation of those at the north. Small farms can only answer where the materials for enriching the soil are at hand, both mineral and vegetable. When one acre can be made permanently as productive as three or four were before, our extensive farms may be divided to more advantage. But under present circumstances, and with our species of labor, we shall be obliged to make up in quantity what we lack in quality, satisfied with gradually improving the soil, or, at least, keeping it up to its original fertility. Lime is unfortunately beyond the reach of a considerable portion of the farmers of eastern Virginia, however desirous they might be to use it. In one district, however, it is accessable in the form of marl, to a large extent of country, where it seems to have been deposited for the purpose of rescuing that beautiful region of country from the curse of sterility, and of adding incalculably to the many natural advantages it already enjoys. If it should be duly appreciated, a century hence may see a wonderful change wrought upon its surface, and hail it as the garden spot of the Atlantic states.

From the denseness of the forests of New York, the clearing of land is a business of great labor, which is often materially increased by the quantity of rock to be removed. The preparation of the soil is also rendered more difficult by the irregularity of the surface, caused by the blowing down of trees by the roots, and thus forming what are termed "cradles." These cradles have to be filled up, and the corresponding mounds reduced, before the land is ready for the reception of a crop. In many places it is now the work of years to prepare a piece of new ground for cultivation. After the wood is taken off, the stumps, too thick to admit the passage of the plough, are left to decay; but, in the mean time, excellent pasturage is afforded by the natural grasses. In two or three years the roots are sufficiently weakened to admit of the easy extraction of the stumps. During the early settlement of the country, however, the wants of the inhabitants compelled them to adopt a more speedy process, and to encounter difficulties in the preparation of the land, which must have been extremely discouraging to any but the most industrious and enterprising race. Girdling, the usual practice of early settlers, was necessarily resorted to, and other parts of the operation were probably performed in a hasty manner. A field in Cayuga county, of four hundred and eighty acres, was thus opened in one year for the cultivation of wheat, which produced the enormous crop of forty bushels to the acre. The memory of an achievement that bespoke so much energy of character, is perpetuated in the name of the place, which is called "Great-field," to the present day. It was a far greater triumph over nature than that which has been recently extolled in the public papers, as having been made in Michigan, where a thousand acres of prairie land had been broken up and laid down in wheat, by the efforts of one company.

The champaign appearance of the country, would lead a traveler to suppose that there might be a deficiency of timber; and the temptation to bring the greatest quantity of land into cultivation that can be spared, must be very great. The roads scarcely ever pass through the woods in the older settled parts, so that the reservation of timber lands are always in rear of the farms. This disposition shows the various improvements of the country to infinite advantage. From the amount of timber in the forests, and the rapidity of its growth, it is only necessary to reserve a small proportion for the uses of the farm. The greatest economy is practised in the consumption of fuel. The winter's supply is cut during the summer in time for it to partially season, and afterwards deposited in wood-houses, to be used as wanted. The construction of the houses is also adapted to the practice of economy in the use of fuel. The rooms are small and very close, and fire places have been superseded in a great measure by stoves. Where the winters are so long, and the summers consequently short, and where land is so extremely valuable, it becomes doubly important that every operation should be managed with the strictest regard to a saving of labor, and that the products of the forest should be carefully preserved from waste. Notwithstanding the protracted winters, the quantity of fuel consumed in New York by a given number of families, is probably not half so much as is used by the same number in the southern states, where the crackling fire, the capacious fire place, and wide stretched door, are so often seen in the same apartment. There is also less timber used in the construction of fences, than in those places where the worm fence is in use. If there was no other objection to the worm fence, the space it occupies would constitute a sufficient motive for disusing it in a country where every foot of land is an object of regard, and where the divisions between the fields are so numerous. But to establish it, and keep it in repair, requires an amount of timber much greater than a direct line of board fence, or post and rail—four or five rails serving instead of twelve or thirteen in a worm fence. An ordinary post and rail enclosure, however, might not be a sufficient safe-guard against the depredations of swine, if these mischievous animals were suffered to roam at large; but fortunately they are mostly confined in orchards, or in styes. For other kinds of stock it will amply suffice.

In connection with the agriculture of New York, some notice of the mills at Rochester, for the manufacture of flour, may not be out of place. Rochester is situated at the falls of the Genesee river, and commands an extent of water power almost unrivaled. The falls are ninety-six feet perpendicular, and a long line of mills is erected immediately below, rising from the bed of the river to above the summit of the bank, against the walls of which they rest. The buildings therefore are considerably more than a hundred feet high, which allows fall enough for the water to be used, as in fact it is, two or three times, before it is finally discharged into the river. A canal, common to all the mills, conducts the water in front of the doors, and is extended on the erection of a new mill. It is a fortunate circumstance that this immense water should exist in the midst of an extensive wheat growing country, and on the margin of the Erie canal, with every facility for the reception of grain, and the shipment of flour to the Atlantic cities. From Rochester, there is a lateral canal taken up the valley of the Genesee river, and a rail-road to Batavia.

The agricultural enterprise of New York has received a powerful stimulus in the Erie canal, which traverses the state from east to west, a distance of more than three hundred miles; and in the numerous lateral branches which are connected with it. Without this improvement, there would have been no outlet for the produce of tha. fertile country; and it would have remained like a giant with his limbs in fetters. With it, however, no country has ever made more rapid strides in population and wealth. It is already found to be too small to furnish a prompt and ready transportation for the increased amount of product and merchandize; and it is accordingly under a process of enlargement. Internal improvement and agricultural enterprise, reciprocally acting on each other, have developed resources which even the projectors of this work could not distinctly have foreseen. The products of the state have been many times multiplied in value and amount, while the revenues derived from the public works have filled the treasury to overflowing. The successful enterprise of New York has naturally stimulated other states to imitate her example, and to project systems of internal improvements on a scale of similar grandeur. But it is next to impossible that any of them can ever derive the same profits. The existence of an immense back country of inexhaustible fertility, has been wanting to insure results equally successful to new undertakings. Posterior improvements, therefore, have been in some instances an actual expense, instead of a profitable investment. The order of things has been reversed. The back country was to be enriched, or in other words to be *made*, while in New York it had already been perfectly formed by the hand of nature. If this diversity of circumstances has not been properly considered in every new enterprise, still we are warranted in believing, that ultimate good will be effected.

Along the whole line of the Erie canal, numerous and flourishing villages have sprung up, and every thing bears the impress of industry and prosperity. Its complete success, and the triumph it has achieved over former prejudices, and the asperities of party spirit, vindicate the right of its projector to be considered as one of the wisest and most distinguished men of his age. It is no longer termed in derision, as it was formerly, "Clinton's big ditch;" it is now "Clinton's noble line, more immortal than that of Homer's."

(Conclusion next week.)

Ohio papers are full of pork—swine—hogs—pigs—shoats—quarters—hams—and sausages. It is enough to make one squeal to read them.—*Buf. Com. Adv.*

Advice Gratis.

The following from the Boston Courier describes a state of things which exist to a considerable extent in this section of country as well as in New England.

A few days ago we heard a hearty and thrifty looking farmer inquiring, in a store on State-street, if the gentleman knew of a place in a store where he could put one of his sons. At the risk of being thought impertinent, we asked him if he knew of a place in the country where a boy was wanted to turn up the sod. He said he did not then; he wanted a hand a while ago, but he hired this man, pointing to his companion, a hale, hearty man of thirty-five. This led to some further conversation in which we learned, that the farmer thought it best to send his sons into the city, to learn to trade, particularly if they were not of stout constitution, and supply their places by hiring men to work on his farm.

In this opinion the honest farmer—is by no means singular, but we apprehend that the advocates of his doctrine lie under a sad mistake. The love of speculation and the hopes of accumulating an independent fortune, or, at least, a competency, without actual personal labor, are the curse of New England. To country boys at 15 or 16, the difficulties of trade and the dangerous uncertainties of shop-keeping are inconceivable. They see nothing but ease and happiness in the employment of the well-dressed clerks of the counting house, and forthwith they must leave the farm, where money is turned up in every furrow, and health sparkles on every blade of grass, to throw away half a dozen years of the spring of life behind a counter. Their minority is closed, and they must then enter upon the world with little or no improvement in their moral, intellectual or physical habits, with no capital but their integrity and good name (if luckily they have been able to pass through a dangerous apprenticeship without the loss of those qualities) wherewith to commence business, and with the knowledge of no profession, but one that is full of competitors, and which offers them no prospect of independence. The city is crowded with shop-keepers and there is no branch of what may be called *trade* that is not overdone. If a young man obtains credit for a small stock of dry goods, or hardware or groceries, ten chances to one he is unable to meet the *first* payment, and if he should be so fortunate as to have turned his stock and made a small profit by the revolution, the second or third period of payment finds him unprepared and he must either clear out (as the phrase is) and seek a living at some other remoter place, or he must write "*Agent*," under his name, on the sign, and struggle with his debts and his bad luck a little longer. The result of this latter arrangement need not be told. Every body knows how few of those who *fail*, ever recover from the shock which broken credit produces; and how hard it is for an "*Agent*" of this description ever to recover the character of a *principal*.

How happy would it be for hundreds and thousands of our young men, if they could be persuaded that a few acres of gronnd are a better capital, than as many thousands of dollars procured by writing their names at the bottom of a negotiable note; and what years of misery might be saved, if men would believe that a dollar actually earned by honorable and healthful labor, as farmers and mechanics, is worth a hundred in prospect to be gained in trade and speculation.

Mr. Whiting's Crop of Wheat.

We observed not long since that there was some mistake in the statement which we made respecting Mr. Whiting's crop of wheat. Since then we have had an interview, and the following is the substance of his story.

In June, 1835, he ploughed up a piece of pasture land, and let it lay until the ensuing spring. He then cross ploughed it and put on a moderate coat of manure from his barn. He planted two acres to corn and beans and half an acre to potatoes. He ashed the corn twice, and plastered it once faithfully after it was up.

In the spring of 1837, he ploughed the piece twice and sowed it (two and a half acres) to wheat, using five bushels of seed in all—harrowed it and gave it a thorough and faithful rolling.

While the wheat was in the milk, hearing of the ravages made by the grain worm, and that lime was a preventive, he scattered over his piece one cask of dry slacked lime.

After harvesting, he thrashed and winnowed up *seventy large* bushels of good sound wheat. Mr. Whiting thinks he is indebted to the use of the roller for his extra crop. By the use of this instrument the earth was brought in contact with the seed, and most of what he sowed came up; at any rate, much more than would have come up had he not rolled his land at all.

Barley. Mr. W. also stated that he raised fifty-two and a half bushels of barley during the past summer from three bushels of sowing. In this crop he also feels indebted to the roller which he used in a faithful manner upon it when sowed. The land was loamy and dry. He used a roller three feet and a half in diameter, made by covering some old cart wheels with plank.—*Me. Farmer.*

Reclaiming Bogs and Swamps.

There is no one thing at present within the scope of our acquaintance that will so materially change the face of the State, and add so much to the actual value of its territory, and even its capital, as the reclaiming of bogs and that kind of land known by the name of Brook Intervale. When the deposit of vegetable matter which has been accumulating for ages, is deep, and it is not very wet, or in such a condition that the water can be commanded or controlled at pleasure, there is no better grass land among us.

This kind of land is abundant in Maine, but has hitherto been considered of not much value, and suffered to lie neglected—grown up to bushes and covered with mosses of no value at all. Where of such texture and consistency as to allow of cultivation, the best of grasses may be raised upon them, and the profit can be easily calculated by those living in their vicinity,and who know the price of labor there and the value of hay. When they are of a more moist nature and will not grow the better or more common grasses, they will produce the coarser or less nutritious aquatic species in abundance, which are very good for sheep and young cattle during the colder parts of the winter. This kind of hay may be considered on an average to the farmer who has a large stock, equal in value to half that which is given for the common kind, and the yield per acre is often more. Let us cypher a little about it.

If it produce one ton per acre, and that ton costs you two dollars to secure it, and brings you four dollars, you have a net income of two dollars upon the acre. Now two dollars, you know very well, is the interest of 33 dollars and 33 and 1-3 cents, at 6 per cent. It is not unfair, then, to consider the acre fairly worth that sum. If it should produce a ton and a half of hay, and that sold for the above price, the amount will be six dollars, or three dollars net income. Three dollars of course is the interest of fifty dollars, and is it wrong to value the acre actually worth that sum?

Let any man therefore sit down and make a calculation of the number of acres which there may be of this kind of soil in his town, now lying idle and comparatively speaking worth nothing; and then see what would be the gain to community, if they were cleared and produced according to the above estimates. And if all these waste acres throughout the part of the state yet unsettled, were reclaimed and in operation, what an increase of valuable and taxable property would result. —*Me. Farmer.*

From the Yankee Farmor.

The Grain Worm.

THIRTY DOLLARS PREMIUM.

"Wheat is, in many parts of the country, subject to injury from an insect or worm, whose appearance is comparatively recent, and whose habits are not well ascertained. He is making dreadful havoc in the wheat regions, producing in many cases, an entire destruction of extensive fields of the most promising appearance, and has advanced at the rate of about forty miles a year. The same insect, it is believed, has attacked barley, rye, and oats, with alarming success. The cultivation of barley has on this account been abandoned in some parts of this State, (Massachusetts) and so has the cultivation of wheat in what have heretofore been deemed some of the most productive wheat regions in New York."

The above is from the Rev. Henry Colman. Other writers have spoken of the ravages of this insect, and thousands of farmers have sowed in hope and rejoiced in the promise of their grain fields, but in harvest, instead of a rich reward for their industry, they have reaped nothing. Agricultural Societies have solicited the best information on this subject, and many experiments have been tried, and remedies recommended, but none have been made known, on which farmers confidently rely. The insects have extended their ravages far and wide, and whole districts of many hundred thousand acres of the most promising grain have been destroyed.

This subject is of the highest importance, not only to farmers, but to the whole community, and further experiments are necessary, in order, if possible, that a perfect preventive or security may be discovered, as it would be of incalculable worth to the country; and for the purpose of stimulating to fresh inquiries, and calling forth the best information that can possibly be obtained on this subject, we hereby offer a premium of THIRTY DOLLARS to any person who shall produce in writing, for publication in the Yankee Farmer, the most satisfactory history of this insect, describing minutely its habits, its mode of operation, and the surest mode against its depredations.

The premiums will be awarded by the decision of three eminent and experienced agriculturists. Communications on this subject may be addressed to CHARLES P. BOSSON, Publisher, North Market Street, Boston, Mass., orW. S. COLE, Publisher, Middle Street, Portland, Me.

Method of Converting Vegetable Matter into Manure.

Much has been said of late on the subject of converting leaves and other vegetables into manure. That leaves and other vegetable substances can be rendered of immense value to the farmer, by their conversion into manure, the experience of many has fully demonstrated. The following plan was recommended some years since, by H. BROWN, Esq., a celebrated chemist, who stated in a paper presented to the "Society for the encouragement of Arts," &c., that he had found from numerous trials, made for several years in succession, by many of his friends, as well as by himself, the very great utility of the composition, as well as its cheapness, with the capability of its being made in any situation and in any quantity. The mode of making it is as simple as it will be found productive. It is nothing more than green vegetable matter, decomposed by quick or fresh burnt lime. Upon a layer of vegetable matter, about a foot thick, a very thin layer of lime, beat small, is to be laid; and so on, vegetable matter, and then lime, alternately. After they have been put together a few hours, the decomposition will begin to take place—and, unless prevented by a few sods, or a forkful of vegetables at hand, the mixture will break out into a blaze, which must, at all events, be avoided. In about twenty-four hours, the process will be complete, and you will have a quantity of ashes to lay on your land any time you wish. Any and all sorts of vegetables, and weeds of every description, if used green, will answer the purpose. They will doubly serve the farmer, as they will not only be got at a small expense, but will in process of time render his farm far more valuable by depriving it of all noisome weeds. Dr. BROWN states that he made a calculation with clover, grown for the purpose, and that one acre, at a single cutting, when decomposed by the above process, yielded a sufficient quantity of ashes to manure four acres. He states that the vegetables should be used as soon after they are cut as possible, and the lime as fresh from the kiln as the distance will allow. It appears that on these two circumstances mainly depends the goodness of the composition. We think this plan is worthy of further experiments, and we should be happy to communicate to the public the result of any trials made for the purpose of testing its utility.—*Farmer's Cabinet.*

Swamp Muck.

We have had several conversations with the farmers in our vicinity relative to the query which we made a few numbers back concerning the use of swamp muck as a manure.

Mr. Z. A. Merrow informs us that he has taken this substance out in the fall and used it in its natural state in the spring as a manure for potatoes. The result of the experiment was that the muck appeared to be nearly or quite as good for this purpose as coarse unfermented manure. He does not suppose that it will last so long.

Mr. Day, formerly of Leeds, corroborates the above statement, he having used it for manuring the potato crop in the same manner.—The statement of Mr. Metcalf, respecting his ruta baga crop published in this days paper, is also in favor of the use of this article.—*Me. Farmer.*

From the Vermont Telegraph

Lime as a Manure for Potatoes.

Some things have already been said and done, on the subject of using lime in raising potatoes. The experience of the friend whose name is attached to the statement below, goes to recommend at least an experiment. Will not the quality of potatoes be improved by the use of lime, as well as the quantity increased?

Waterford, Jan. 1st, 1838.

Respecting the use of lime in raising potatoes. I can make no accurate statement, as the result of my experiment,—as I was not at home when my hands commenced digging those that were limed,—but as near as I can calculate I obtained something like 100 bushels more for making use of about six bushels of slacked lime, in the following manner: I had about half a pint of lime placed in the hill, and had the potatoes dropped on it, and pressed them down gently with the foot before covering. I was led to try the experiment by seeing the effect produced by some lime that had been used in a tannery, being put into the hills of some potatoes. JOHN IDE.

Seeds for 1838.

JUST arrived at the Rochester Seed Store, a large importation of English Field and Garden Seeds, of the growth of 1837; shipped from London this fall expressly to our order, and comprising a full assortment of the choicest kinds, such as

Cabbage,	Ruta Baga,	Rye Grass,
Cauliflower,	Mangel Wurtzel,	White Dutch
Brocoli,	Sugar Beet,	Clover,
Radish,	Lucern,	&c., &c.
Turnep,	Trefoil,	

These Seeds are from one of the best establishments in Europe, and the perfect satisfaction which they have hitherto given, is sufficient guarantee of their character.

Dealers and others supplied at wholesale on very favorable terms. nov18tf REYNOLDS & BATEHAM.

Extensive Sale of Imported Stock,

At the Old Norton Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquiries and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty *Improved Durham Short Horns*, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "ROVER," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by Young Albion; gr. dam, (Lady Sarah) by Pilot; gr gr. dam by Agamemnon. Also, ALEXANDER, ORION, SPLENDOR and others. And of the Cows and Heifers, BEAUTY, PRIMROSE, own sister to Reformer, PRIZE, LADY BOWEN, BRILLIANT, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare FALCONET, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorceror Amelia, &c.

Bay mare Miss ANDREWS, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare JESSICA, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, HUMPHREY CLINKER, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horses TURK and ALFRED, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by thoir present owner who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish.

To Agriculturists and Others,

THE subscriber, being just returned from England, made such arrangements whilst there as will enable him to import any quantity of the different breeds of Sheep, Cattle and Hogs, in that country. Those persons who wish to get Imported Stock, will be able to do so by applying, if by letter, post paid, to

JOHN COWLEN,

Jan. 6, 1838. *Tully, Onondaga county, N. Y.*

N. B.—The passage money only will be required previous to their arrival in New York.

Nurseryman Wanted.

A SOBER industrious man who is well acquainted with the Nursery business, and who also understands the management of Green House Plants, will find constant employment and good wages, by applying by letter or otherwise to the proprietor of the Buffalo Nursery, Erie Co., N. Y. B. HODGE.

Buffalo, Jan. 6, 1838. jan6f3t

☞ For sale as usual a great variety of Fruit and Ornamental Trees, and Flowering Shrubs. Also, a large stock of Greenhouse and other Flowering Plants. Printed Catalogues sent to every applicant. B. H.

Monroe Horticultural Garden & Nur-

SERIES, GREECE, MONROE CO., N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired delivered on the canal one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1837. ASA ROWE.